

***Music meets Medicine: Looking into the mind,
body and soul for the wellness that music brings***

**INTERDISCIPLINARY SOCIETY
FOR QUANTITATIVE RESEARCH IN
MUSIC AND MEDICINE**



3rd Biennial International Conference


July 24-26, 2015

Immaculata University

1145 King Road, Malvern, PA 19345, USA



remo-WellBeing_ISQMM program-2015_v2.pdf 1 5/12/15 5:05 PM



The quest for Well Being begins
by discovering your personal Rhythm

Learn to Facilitate
HealthRHYTHMS Group Empowerment Drumming



Unparalleled Synergy of Music and Medicine
Barry Bittman, MD



August 15-16 - Silverdale, WA

healthrhythms@remo.com

www.remo.com/health

Interdisciplinary Society for Quantitative Research in Music and Medicine



3rd International Conference

July 24-26, 2015

**Immaculata University, Malvern, PA
UNITED STATES**

Executive Board of Directors & Planning Committee



David Akombo, Ph.D.
Director of Music Education
Graduate Coordinator
Associate Professor of Music
Department of Music
Jackson State University, MS



Arthur Harvey, D.M.A.
Professor Emeritus
University of Hawaii
Director: Music for Health Services
Ellenton, FL



Roy Kennedy, Ph.D.
Director of Music Therapy,
Department of Music,
University of Georgia, GA



Laura Dunbar, Ph.D.
Assistant Professor of Music Education
Music Education Coordinator
The University of Wisconsin-Eau Claire, WI
Webmaster for ISQMMM



Eric Miller, Ph.D.
Faculty Montclair University
Music Therapy Dept.,
Ott Lab Coordinator
Research & Ethics Committee,
World Federation of Music Therapy, NJ



Steve Jackowicz, Ph.D.
Faculty, The University of
Bridgeport, CT

Planning Committee



Lynn Miller, MA, CMT
Music therapist, staff for
Music for People and Flute
Haven Native flute School



Lillian Eyre: PhD, MT-BC, MTA, LPC
Associate Professor, Graduate Chair,
Director of Music Therapy
Immaculata University, PA



Andrea McGraw Hunt, PhD, MT-BC
Assistant Professor and Coordinator
of Clinical Training, Immaculata
University, PA

Acknowledgments

- * Sister Ann Heath, IHM, Ph.D.
Vice President for Academic Affairs
- * Spirit Arts
- * Remo Inc.
- * Angela Falco
- * Lillian Eyre: PhD, MT-BC, MTA, LPC
- * Music For Health Services
- * Steinway & Sons
- * Music for People Improv Orchestra
- * Mahesh George Valiavila
- * Immaculata Student Volunteers
- * Andrea M. Hunt, Ph.D. MT-BC





COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH

June 4, 2015

Dear Conference Attendees:

On behalf of the Pennsylvania Department of Health, I welcome each of you to the Commonwealth of Pennsylvania and the Interdisciplinary Society for Quantitative Research in Music and Medicine 2015 conference.

The world of music and movement and how it relates to health continues to intrigue us. We need new and proven methods to confront health challenges of today and of tomorrow. However, we cannot stop with conventions, we must endeavor to research on all modalities that provide better health outcomes. There are many documented cases where music and movement have had a significant effect on the general wellness. One of the Department's primary goals is to get people moving and staying active. This conference can help Pennsylvania find more and effective ways to get moving and lead longer healthier lives.

I hope you will have some time for sightseeing during your visit to Pennsylvania. We are very proud of the Commonwealth and what it offers. You are only a half hour away from the Epicenter of the birth of this country. I encourage you to visit Constitution Hall, the Liberty Bell and all the sites that we have to offer. Enjoy the conference and thank you for all you do to contribute to the health and well-being of all people.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Raniowski'.

Martin Raniowski, MA

WELCOME

“Ladies and Gentlemen, my respected and beloved music friends! *Musica animae levamen*, music is medicine for our souls” (Christopher Rueger, 1991).

Dear Conference Participants:

On behalf of the Interdisciplinary Society for Quantitative Research in Music and Medicine (ISQRMM), I would like to welcome all of you to the 3rd Biennial conference of ISQRMM at Immaculata University. Thank you for choosing to be part of this conference whose aim is to explore the unanswered questions regarding the efficacies of all forms of music on the human mind, body and soul.

Customarily, our conference participants enjoy amicable professional relationships, collegiality, professional discourses and collaborative scientific inquiries on research in music and health to try and find answers to unanswered questions. You will also enjoy live music performances from different cultural backgrounds. Our inaugural conference in 2011 at Weber State University in Ogden, Utah, was rated among the best conferences of that year by the state of Utah. Following that success, the ISQRMM successfully held its 2nd biennial conference at The University of Georgia, Athens in 2013. We continue to be an inspiration to many researchers, scholars and performers throughout the world attracting participants from as far as India, Brazil, England, Austria, South Africa and Canada. We know that there are areas where we can improve, and I hope the topics explored in our conference together with your support can help us achieve this vision. Once again welcome and we look forward to seeing you at our 2015 conference.

Musically yours

A handwritten signature in blue ink that reads "Dr. Akombo". The signature is stylized, with a large, circular initial "D" and a cursive "Akombo".

David O. Akombo, B.Ed., M.A., M.Mus., Ph.D.
Associate Professor of Music Education and Graduate Faculty
Jackson State University
Executive Board Member of ISQRMM

Keynote Speaker



Dr. Arthur Harvey is an internationally known authority in music for individuals with special needs, music and the brain, music and health, and music and learning. Dr. Harvey has provided training and spoken at conferences in 24 countries, as well as throughout the United States. A retired Professor from The University of Hawaii, Honolulu, and Director and Founder of MUSIC FOR HEALTH SERVICES, Dr. Harvey has a diverse and rich background in teaching, research and clinical applications of music as a healing art. Dr. Harvey's interest in and utilization of the therapeutic functions of music has been fueled by his passion for helping persons with disabilities. For over fifty years he has worked with special needs individuals in schools, institutions and privately, and has consistently provided therapeutic music services to hospitals, nursing homes, and service organizations (such as Parkinsons Association, Cancer Society, Multiple Schlerosis Association, Alzheimers Association, DD and DOH, Medical Societies, Health Care Organizations both traditional and CAM, and AARP). His extensive experience working with music therapists,

medical organizations and individuals, sound healers and researchers has resulted in him developing Music As Therapy courses, which have been taught at the University of Hawaii at Manoa and are currently taught online for Kapiolani Community College. Dr. Harvey also taught at The New York Open Center's Sound and Music Institute Facilitator Training Program.

Interdisciplinary Society for Quantitative Research in Music and Medicine
Friday, July 24, 2015

8:30AM – 9:25 AM		REGISTRATION: FACULTY CENTER / Good Council Building	
SESSION 1	<i>Presenter</i>	<i>Title</i>	<i>Location</i>
9:30–10:30 AM	Mara E. Culp, PhD (ABD); Angela M. Guerriero, PhD (ABD), MT-BC	How School-Based Therapists Use Music to Treat Students with Special Needs	GC Room 20
9:30–10:30AM	Joseph Reilly, MA MT-BC; Mary Milroy, C.Ac CCP BSIE	Sound Healing Frontiers: Cymatherapy Meets Electrophotonic Imaging	GC Room 28
9:30–10:30AM	Peggy Tileston, MA, MT-BC, CMSII-BC	That's Music to My Ears – the Sound of Laughter	GC Room 2
SESSION 2	<i>Presenter</i>	<i>Title</i>	<i>Location</i>
10:40–11:10 AM	Dr. Roy Kennedy	Effects of cancer patients listening to their preferred music on claustrophobia, anxiety, and nausea during radiation treatment	GC Room 20
10:30–11:10 AM	Mahesh George MM	Appraising emotions post raga intervention: the ability of ragas in managing mood states	GC Room 28
10:30–11:10 AM	Emma Rodríguez Suárez, Ph.D. Kaleb Santana Ramos, MME	The Drum Set and Cerebral Palsy, Motor and Affective Psychological Development	GC Room 2
11:25– 12:25 PM	<i>Keynote</i> Dr. Arthur Harvey <i>Renowned Neuromusicologist</i>		Villa Maria: Memorial Hall
12:30–2:30 PM	LUNCH ON YOUR OWN		

SESSION 3		<i>Presenter</i>	<i>Title</i>	<i>Location</i>
2:30 PM - 3:10 PM		Allison Upshaw	Battles of Wounded Me: An autoethnographic cantata	GC Room 20
2:30 PM - 3:10 PM		Anna Thorne	The Influence of Piano Training on Verbal Memory in Healthy Older Adults	GC Room 28
2:30 PM - 3:10 PM		Lillian Eyre, PhD, MT-BC; Andrea Hunt PhD, MT-BC	Research Results and Reflections: The Effect of Music-Imagery and Art on Professional Burnout	GC Room 2
SESSION 4		<i>Presenter</i>	<i>Title</i>	<i>Location</i>
3:25PM - 4:05PM		Laura Dunbar, Ph.D.	The Effect of Music on Impulsivity in College Undergraduate Students with Attention Deficits	GC Room 20
3:25PM - 4:05PM		Lynn Miller MA CMT Brianne Wall	Music Improvisation: Bringing Soul in the Hospital Setting	GC Room 28
3:25PM - 4:05PM		Megan Smith, MA, MT-BC	Group Music Therapy and Mindfulness towards Self-Awareness and Empathy Development in Children: A Mixed Methods Pilot Study	GC Room 2
SESSION 5		<i>Presenter</i>	<i>Title</i>	<i>Location</i>
4:20PM - 5PM		Weldon Cochren, M.Div	Spiritual Healing and the Divine Experience: Music as a Catalyst in Sacred Space	GC Room 20
4:20PM - 5PM		Kent Nelson, Ph.D.	Analysis and Recommendations for Teaching Students with Dyslexia	GC Room 28
4:20PM - 5PM		Clint Goss Ph.D.	FLUTES: Health and Healing	GC Room 2
5:00 PM - 7:15 PM	Dinner <u>ON YOUR OWN</u>			
7:30 PM - 8:45 PM	Music Performance Angela and Jimmy Falco, Jazz and Healing songs Mahesh George Valiavila, Indian Classical vocalist			Villa Maria: Memorial Hall

Interdisciplinary Society for Quantitative Research in Music and Medicine

Saturday, July 25, 2015

8:30 – 9:00 AM		REGISTRATION: FACULTY CENTER/ Good Council Building	
SESSION 1	<i>Presenter</i>	<i>Title</i>	<i>Location</i>
9:15AM – 10:15 AM	Juliana Azoubel, MFA	Contemporary Dance and Breast Cancer/ Brazil	GC Room 20
9:15AM – 10:15 AM	Lynn J. Saltiel, MSSW, LCSW	Music improvisation skills: Therapeutic tools for resource development in clinical practice	GC Room 28
9:15AM – 10:15 AM	Laura Thomae MAMT-BC	“Drumming in the Dark: Integrating Music Therapy Interventions with Traditional Healing Practices in Hospice Care	GC Room 2
SESSION 2	<i>Presenter</i>	<i>Title</i>	<i>Location</i>
10:30 AM– 11:30 AM	Eric Miller, Ph.D.	Bio-Guided Music Therapy: Live jamming for health with real-time physiological data	GC Room 20
10:30 AM– 11:30 AM	Mahesh George MM	Raga Therapy: The Indian Music therapy, Treatment with Ragas	GC Room 28
10:30 AM– 11:30 AM	Mary E. Campbell, MAMT-BC	Mandala, Music, and Recovery	GC Room 2
11:45– 12:30 PM	POSTER SESSIONS EXHIBIT Hall open		FACULTY CENTER Good Council
12:30 PM – 2:30 PM		LUNCH ON YOUR OWN	
2:30 PM – 3:30 PM	MUSIC PERFORMANCE SPIRITGRASS with guest appearances from ISQMMM board		Villa Maria: Memorial Hall

SESSION 3	<i>Presenter</i>	<i>Title</i>	<i>Location</i>
3:45 PM - 4:20 PM	Dan Kruse, MM	Musical Cognition, Emotion and Imagery: Ear Worms	GC Room 20
3:45 PM - 4:20 PM	Dr. Roy Kennedy	Carolyn Graham's Jazz Chants	GC Room 28
3:45 PM - 4:20 PM	Mara Culp, MME	A Qualitative Investigation of Speech-Language Pathologists' and Music Educators' Techniques	GC Room 2
SESSION 4	<i>Presenter</i>	<i>Title</i>	<i>Location</i>
4:30PM - 5 PM	Naejeong Suh MM	The Effects of Music Therapy and Music Education on the Quality of Life of the Healthy Elderly People	GC Room 20
4:30PM - 5 PM	Madaleen Botha	Perfectionism, Academic Motivation, and Performance Anxiety in South African University Music Students	GC Room 28
4:30PM- 5PM	Kristie Lipford. Ph.D.; David Akombo, Ph.D.	The Effects of Music Pain Perception on Patients with Sickle Cell Disease	GC Room 2
7:30 PM - 8:45 PM	ISQRMM Fundraiser Concert <i>Music for People Improv Orchestra</i>		Villa Maria Memorial Hall

Interdisciplinary Society for Quantitative Research in Music and Medicine

Sunday, July 26, 2015

8:30– 9:00 AM	REGISTRATION: FACULTY CENTER/Good Council		
SESSION 1	<i>Presenter</i>	<i>Title</i>	<i>Location</i>
9:00–10:00 10:15–11:15	Dr. Steve Jackowicz	A Web of Resonance: An Examination of Chinese Bell Therapy	GC Room 21
9:00–10:00 10:15–11:15	Dr, Arthur Harvey	MUSIC RX: Journey of Exploration and Explanation	GC Room 20
9:00–10:00 AM	Dr. David Akombo	African Drumming for Your Health	GC Room 2
10:15–11:15 AM	Carla Rose Kelly, MM	Sacred Scale Music to Treat Disorders Related to Pain, Anxiety and Depression	GC Room 2
11:25–11:45AM	Performance "Ruído Rosa" (Brazilian Dance and Music)		Villa Maria: Memorial Hall
11:45–12:00PM	CLOSING in the ROTUNDA		Villa Maria entrance

Symposium Presenters



Allison Upshaw holds a B.M. from Oberlin Conservatory, and an M.M. from LSU both in vocal performance. She is also a proud member of Actor's Equity, the professional stage actor's union. As a performer, she often presents recitals of Western classical music by composers from the African diaspora. Allison began working on her PhD in Interdisciplinary Studies at the University of Alabama in the Fall of 2014. Her combined disciplines of study are aesthetic/creative literacies, performance, and arts based research (ABR) methods. In August, Allison will travel to Melbourne, Australia as a presenter at the 1st annual Critical

Autoethnography conference. Opera as a tool for autoethnographic inquiry, process, and product is her current research focus.



Andrea McGraw Hunt, Ph.D. has practiced music therapy since 1997 with clients in various settings, including skilled nursing, inpatient psychiatric, and residential drug and alcohol rehabilitation, in addition to private practice in the Bonny Method of Guided Imagery and Music. As assistant director of Temple University's Arts and Quality of Life Research Center, she oversaw all aspects of the Center's operations, including project and research designs; community partnerships; obtaining funding; data collection, management, and analysis; and reports of project outcomes. Hunt has presented both nationally and internationally on her research and clinical practice, as well as on the topic of multicultural competence in music therapy. Her personal research interests include multicultural competence in music therapy practice, music-based

assessment in music therapy, and neurophenomenology. She is a founding member of Mandala, an interfaith devotional music ensemble, which performs both regionally and across the country.



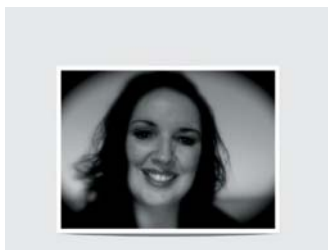
Angela Guerriero, Ph.D. (ABD), MT-BC is a board certified music therapist and director of Tempo! Music Therapy Services in West Chester, PA and Nutley, NJ. She works with students with autism, developmental delays, and various other disabilities in the public schools as well as in the private clinical setting. Angela has her MA in music therapy, M.Ed. in special education, and her MM in music education. She is a doctoral candidate (ABD) at Drexel University studying creative arts in therapy and is an assistant professor in the Department of Music Education at West Chester University.



Anna Thorne earned her Bachelor of Science degree in Psychology from the University of Georgia in 2011. She is now a Ph.D. student in UGA's Behavioral and Brain Sciences Program. Her research interests center around the influence of lifestyle factors in promoting healthy aging. Her recent work focuses on the potential effects of musical training and nutrition on neuroplasticity and cognitive functioning in older adults. In an effort to approach these research problems from multiple angles, Anna is gaining expertise in a wide range of methodologies, including psychophysics, behavioral techniques, and dense array electroencephalography. She has also established collaborations with UGA School of Music faculty to better answer questions concerning the effects of music on aging.



Billy R. Hammond, Ph.D. is a Professor in the Neurosciences program at the University of Georgia (UGA). He is also faculty in the Foods and Nutrition and Gerontology program at UGA. He is the Director of Graduate Studies and the Principal Investigator of the Visual Sciences and Brain and Behavior Laboratory. His Ph.D. was received at the University of New Hampshire and his postdoctoral work was done at Harvard Medical School. He has published over 90 empirical papers and numerous chapters, reviews, and theoretical papers on retinal carotenoids, psychophysics, visual development and visual neuroscience.



Carla Rose Kelly: life-long musician, multi-instrumentalist, award winning pianist, composer, recording artist, Master Healer with Music, has 3 post-secondary degrees, Royal Conservatory piano & theory teacher 25 years, 10 years vocalist with Conservatory Canada. Carla Rose is inventor of Sacred Scale musical instruments and Sacred Scale Music Education Program. She is pioneer and sole researcher in the world of the healing effects of Sacred Scale. She facilitates internationally at the IAMM, ISQMMM and Music Therapy Conferences sharing the substantial results of her quantitative research. In 2014, her research was published in the ISQMMM Journal. Carla Rose teaches in Japan, Canada and US. She has had great success in healing diseases with unknown cures in the medical field such as arthritis, IBS, cancer, ADD, etc. with the Sacred Scale. Her passion is to heal with music.



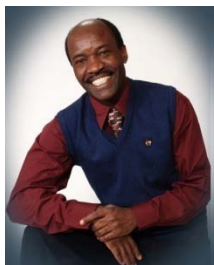
Clint Goss holds a Ph.D. in Computer Science from New York University, and currently serves as an expert witness in patent dispute and intellectual property cases. He also holds a commercial pilot license and a flight instructor certificate. Clint Goss, Ph.D. is a trained music facilitator and performer on world flutes and an array of ethnic fusion world instruments. Clint and his wife, Vera, have facilitated energetic and inspirational Native Flute workshops since 2003. They bring out the potential in all participants, regardless of their level of musical experience. Clint holds a Ph.D. in Computer Science from New York University, and is a trained music facilitator and performer on world flutes and an array of ethnic fusion world instruments. In 2006, Clint teamed up with bluegrass mandolinist/music therapy researcher Eric Miller and vocalist Lynn Miller to form the SpiritGrass ensemble and release the CD "SpiritGrass" on the Manifest Spirit Label.



D. Weldon Cochren, M.Div. is a music producer, songwriter, and sound designer. Mr. Cochren has worked with many recording artists and recording companies in the United States and Canada. He has studied Pentecostalism and its African/African American roots for a number of years, and has been involved in Pentecostal ministry over 33 years. Mr. Cochren has ministered and taught domestically and in Canada, South Africa, Zimbabwe, Botswana, and Ghana. Mr. Cochren's extensive experience in religion, spirituality and music are the major factors that caused him to research and investigate the possible connectivity to human wholeness. Mr. Cochren earned a Master of Divinity from Drew University in Madison, New Jersey and was granted numerous scholarships and awards. He focused much of his studies in the areas of "African-Based Religions of the Caribbean and Latin America," "Religion and Culture," "Music of the World's Religions" and "Music of the Emerging Church." Mr. Cochren has a Bachelor of Science degree in Arts Management from Empire State College, State University of New York.



Dan Kruse is an ethnomusicologist, musical researcher and documentarian. He holds two degrees from the University of Arizona combining ethnomusicology, anthropology and media arts, and a Bachelor's in Media from the University of Missouri. His ethnographic field experience includes extended study in West Africa, documented in *You Have Sweet Ears*, an audio CD. Dan's Master's Thesis is *ZOOM!*, an award-winning documentary film about a tiny, late-1950s record label in Tucson, AZ. His research on *Film and Video as Tools in the Structural Analysis of Music* was presented at a regional ethnomusicology conference. Dan's current research, funded by the University of Arizona's Confluent Center for Creative Inquiry, is an interdisciplinary study of "Ear Worms". He and his wife live at the Stone Curves Cohousing Community in Tucson. He lectures on musical topics before groups and classes in the area, and is the local host of NPR's "All Things Considered" on Tucson's KUAZ-FM.



David O. Akombo, Ph.D. is Associate Professor, Director of Music Education and Coordinator of Graduate Studies at Jackson State University. Before joining Jackson State University, Dr. Akombo was a Diversity Fellow at Weber State University in Utah. Intrigued by the peculiarities of music including the interdisciplinary studies of music in medical and psychological practices, Dr. Akombo has studied and researched the effects of music on children and young adults both in schools and in hospitals. As scholar and performer, Dr. Akombo balances his research interests amicably as a music educator, ethnomusicologist, composer and singer/drummer, having worked in Africa and Southeast Asia where he studied with Balinese artists. His books, *Music and Healing Across Cultures* (Ames, Iowa: Culicidae Press, 2006) and *Music and Medicine: Connections Found* (Seaburn, 2009) unfold the mechanics of the relationships between music, culture, physiological and spiritual states in people from the anthropological and epistemological inquiry regarding music healing and the cosmos. These books show the power of music and its ability to promote mind/body coordination. Dr. Akombo has worked jointly with the University of Florida's Center for Arts in Healthcare Research and Education (CAHRE) with which he collaborated to help establish the Arts in Medicine (AIM) program in Nairobi, Kenya. Located at Mater Hospital and funded by the State of Florida Center for Cultural Affairs in Tallahassee, this is the first known Arts in Medicine program to be established in Africa. Dr. Akombo continues to be active in music education research, world music, interdisciplinary scholarship in music and he has spoken and conducted clinics in several countries. He is a member of the Music Educators National Conference, the Utah Music Educators Association, Society for Ethnomusicology, and Society for the Arts in Healthcare. Dr. Akombo is a co-founder and a member of the Executive Board of the Interdisciplinary Society for Quantitative Research in Music and Medicine.



David Cromer is a Biology and Psychology pre-med undergrad at UGA. He has been a member of the UGA Human Biofactors and Vision Sciences laboratories for a year now, which is what got him involved with this study. He loves observing behavior's effect on health, as it utilizes the strength of his degrees and helps him consider options for some of the western world's worst epidemics, including obesity and mental decline in old age. On top of his work as a lab assistant, he assists Gainesville Eye with their video recording technology and help supervise the recreational activities in UGA's Intramural Sports department. His hobbies include cycling, music and reading.



Emma Rodríguez Suárez, Ph.D. was born and raised in the Canary Islands, Spain. She holds a B.M. in M.Ed. and a M.M.Ed. from the Hartt School of Music, University of Hartford. She also holds a Ph.D. in M.Ed. from the University of Toronto. Dr. Rodríguez Suárez is a teacher trainer and holds a Level III Orff-Schulwerk Teacher Training certificate and a Kodály Certificate from the Kodály Musical Training Institute. She was awarded an Artist-Teacher Certificate by the Association for Choral Music Education and she also holds a Creating Artistry Conductors Workshop Level III certificate. Dr. Rodríguez Suárez is the author of *Canciones de mi Tierra Española: Islas Canarias/Songs of my Spanish Land: Canary Islands* and has published numerous articles, and presented workshops both nationally and internationally. Dr. Rodríguez Suárez is an Assistant Professor of music education at Syracuse University and a visiting lecturer at the Conservatory of Music of Puerto Rico.



Eric Miller, Ph.D. MT-BC BCB biofeedback therapist and board-certified music therapist is author of *Bio-guided Music Therapy* (2011) Jessica Kingsley Publishers. He serves as adjunct faculty at Immaculata University, Ott Lab for Music & Health Coordinator at Montclair University, and has lectured at the Naropa Institute and Bryn Mawr College among other institutions. Recent international presentations include sessions at the World Music Therapy Congress in Seoul, S. Korea, Hsien Chuan University in Taipei, Taiwan, and workshops in Kiental, Switzerland, Cogolin, France and Torino, Italy. Dr. Miller serves as Executive Director of nonprofits Music for People, Expressive Therapy Concepts and founded the Biofeedback Network. Eric is actively involved with Music for People and has served as Executive Director since 1997. Eric is credited with development of the MfP Europe program, the community service initiative and on-site digital recording and CD operations. In his spare time, Eric chairs the Pennsylvania Badminton Association. He has reached the finals in the PA State Badminton Championships, has been nationally ranked in the United States as high as no. 12 in doubles, and coaches the Bryn Mawr College varsity Badminton team. Eric collaborated with Grammy winning cellist, David Darling on his first instrumental CD, *Jazzgrass*.



Harrison Minh Kim: I am from Kennesaw, Georgia and I am a Microbiology major, entering my fourth year at the University of Georgia. While my major is unrelated to my current involvement in research, I have a strong interest in multiple areas of psychology. These areas include cognitive and comparative psychology. I was lucky enough to have been part of this study not only for the cognitive portion, but also the music component as it has always played a large role in my life.



Joe Reilly is a published music therapy researcher. Mr. Reilly is also the clinical director of Tune-Up Network Enterprises where he examines the effects of sound on the human energy field. Presented at the Naval Research Lab, Washington D.C. *THE SOUND OF COLOR: Improving the Overall Health of Military Personnel Through Sonic and Biophotonic Protocols*. January 2011.



Juliana Azoubel is a dance professor at the Federal University of Minas Gerais, in Brazil. From 1999 to 2013, she worked as the head of the Department of Arts Education and as a dance professor at the Federal University of Paraná, in Brazil. Born in Recife, Brazil, she has worked as a dancer, teacher and choreographer and has directed her own dance ensemble. In the US, Ms. Azoubel has worked for the Center for the World Arts, the Center for Latin American Studies and the Department of Theatre and Dance at the University of Florida where she founded the Brazilian Dance Ensemble "Jacaré Dançante". While at the University of Florida, Ms. Azoubel was the main dancer and choreographer of the World Music Ensemble "Jacaré Brazil". Ms. Azoubel holds a bachelor's degree in Dance and a Masters degree in Latin American Studies from the University of Florida. In 2012, she published the book *"Frevo and the Contemporary Dance Scene in Pernambuco, Brazil: Staging 100 Years of Tradition"* (2012) and in 2013, Ms. Azoubel was appointed as one of the Brazilian Culture Ambassadors, a title given by the Brazilian Consulate and the Quilombo Center in Chicago. Currently, besides spreading Brazilian Culture, Ms. Azoubel is also working with contemporary dance and Pilates for special populations.



Kaleb A. Santana Ramos was born and raised in the island of Puerto Rico. He holds both a bachelor degree in percussion and music education. He is currently working on a master's degree in music education from the Conservatory of Music of Puerto Rico. Mr. Santana Ramos is a certified music teacher in Puerto Rico. He specializes in classical and popular percussion individual and group lessons. As a private drum set and percussion teacher he has worked with students with Cerebral Palsy, DNA disorder, and Speech Apraxia. In October 2013, he presented his thesis research entitled *The Drum Set and Cerebral Palsy: Motor and Affective Psychological Development* at the Music Education Forum in the Conservatory of Music of Puerto Rico. In March 2015, he also presented this same research study at the XIII Puertorrican Research Congress in Education at the University of Puerto Rico.

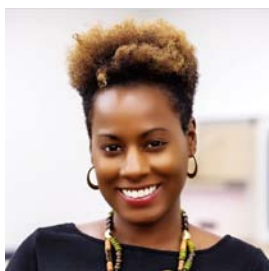


Kent Nelson DMA, has served as an adjunct professor at Weber State University for over twelve years teaching private applied low brass, brass methods classes, and participating in numerous recitals and master classes. He also works as an instrumental music teacher at Olympus Junior High School, where he has been honored with the Granite School District Excel Award (2007), the Utah PTA Gingerbread House Festival Kent has served as an adjunct professor at Weber State University for over thirteen years teaching private applied low brass, brass methods classes, and participating in numerous recitals and master classes. He also works as the instrumental music teacher at Olympus Junior High School, where he has been honored for his quality teaching, receiving the Granite School District Excel Award (2007), the Utah PTA Gingerbread House Festival Teacher of the Year Award (2006), and the Fulbright Memorial Fund (Japan, 2004). Kent is also conductor and music director for the Granite Junior Youth Symphony, an ensemble he has been associated with for over 25 years. In addition to his teaching duties, Kent is active in the Salt Lake music scene. He just concluded a 20 year tenure as principal trombone with the Utah Chamber Orchestra (Ballet West) and has performed in jazz, pop, and touring show groups throughout his career. Internationally, Kent has performed in Europe and China, serving as principal trombone for the Classical Music Festival (2001-2007) in Eisenstadt, Austria. Currently, Kent is pursuing his doctorate in music education from Boston University (ABD) where his dissertation topic is on music and dyslexia. He has presented issue at the first conference of the Interdisciplinary Society for Quantitative Research in Music and Medicine (ISQRMM) (2011) at Weber State University in Ogden, Utah, and at Jackson State University, Jackson, Mississippi (2012). Kent was also on a panel discussion of alternative school music ensembles at the 7th International Symposium on the Sociology of Music Education (2011) at Michigan State University, East Lansing, Michigan. Kent holds a master's degree from the University of Cincinnati's College-Conservatory of Music in trombone performance and a bachelor's degree in music education from the University of Utah. Kent is a member of The National Association for Music Education (MENC), International Trombone Association (ITA), and the International Dyslexia Association. Kent resides in North Salt Lake with his wife, Denise, who is also an active trombone player.



Kevin Middlebrooks is entering his fourth year of undergraduate study at the University of Georgia, pursuing a Bachelor of Music in Music Therapy. He has studied piano since age 5 with esteemed teachers including Mrs. Bobbie Hall, Dr. Francisco Silva, and Dr. Evgeny Rivkin, and has received a semester of pedagogy instruction from Dr. Peter Jutras. Starting at age 7, he has always desired to become a piano teacher, and has taught several friends for brief periods prior to this study. His experience with Music Therapy has also allowed him a unique opportunity to create music with people from a wide range of age-groups and ability levels. Kevin hopes to serve as a board-certified music therapist and to one day begin teaching from his own private piano studio. He wants to thank Ms. Thorne

for this wonderful teaching experience, and is honored to have been a part of such a fascinating and well-designed study.



Kristie Lipford, Ph.D. is a NIH Disparities Research Trainee and a junior faculty member at Jackson State University where she divides her time between teaching and research. In her teaching role, Dr. Lipford oversees and plans curriculum for the Research Methods course in the Bachelor of Social Work Program. In her research role, she broadly examines health behaviors. She is currently completing a manuscript that examines the effect of psycho-social stressors on physical activity, dietary habits, and sleep patterns using Jackson Heart Study data. Her most recent focus though is integrative medicine. At the present, she is preparing a NIH Career Development Award to undergo a review with the National Center for Complementary and Integrative Health. Dr. Lipford is interested in analyzing locally, nationally, and globally available datasets to examine complementary and alternative medicine use among ethnic groups and minority populations.



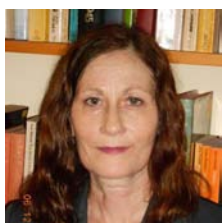
Laura Dunbar, Ph.D. has taught 10 years in the public schools beginning her career as a band director teaching instrumental music to grades 5-12 at Elmwood Local Schools in Ohio. When her family relocated to Arizona, she accepted a K-8 position in Sedona, Arizona where she taught general, instrumental, vocal, and steel drum music for seven years. Laura was a graduate assistant at the University of Arizona where she completed a Ph.D. in Music Education with a minor in Educational Psychology. Her primary research interests include the effects of music and music training on those with attention deficits. She has presented at local, state, and national conferences and in-service workshops. Laura is currently Assistant Professor of Music Education-Elementary Specialist and Music Education Coordinator at the University of Wisconsin-Eau Claire.



Laura Thoma, MT-BC is Director of the Creative Arts and Complementary Therapies Program at Keystone Hospice in Wyndmoor, Pa. She is a board certified music therapist, singer and songwriter. Her work in hospice focuses on the use of music and integrative therapies for healing and wellness in patients and caregivers. Laura's work has been featured in a number of print articles and PBS television segments. She has presented at various national conferences on the use of Music and Arts therapies in hospice, bereavement and on the use of creativity and mindfulness to reduce stress and burnout in caregivers. She served as chair of the Quality of Life Assurance or the Pennsylvania Department of Welfare Pediatric and Palliative and Hospice Task Force and the Allied Steering Committee of the National Hospice and Palliative Care Organization. She has a special interest in incorporating music with traditional healing methods in hospice.



Leigh A. Kirby, MS, MT-BC is the co-founder and executive director of Alice's Encore: Community Music & Mindfulness, Inc., a nonprofit organization in Rochester, NY. She is also a self-employed music therapist/piano teacher and adjunct faculty member in the Creative Arts Therapy program at Nazareth College. She is passionate about working with underserved populations to foster human connection and awareness, and in turn build community. Areas of research include music therapy in pain and end-of-life care, and group music therapy for empathy development. Her work is published in *The Journal for Alternative Medicine Research*, and *Pain: International Research in Pain Management*.



Lillian Eyre, Ph.D. is Associate Professor, Graduate Chair, and Director of Music Therapy at Immaculata University in Pennsylvania. She graduated from the University of Quebec in Montreal (UQAM) and has a PhD in music therapy from Temple University. She has worked extensively in psychiatry and in community mental health, in medical settings, and with adults in private practice. Her research interests include applications of narrative therapy practices in music therapy, recovery in mental health, clinical improvisation, and music therapy supervision. She serves on the editorial review board of *The Arts in Psychotherapy* and *Music Therapy Perspectives* and is a member of the Professional Supervision Training and Continuing Education Committee for the Canadian Music Therapy Association.



Lisa Renzi, Ph.D. is the Principal Investigator of the Human Biofactors Laboratory at the University of Georgia, where she conducts clinical research on populations across the lifespan. She earned her B.S., M.S. and doctorate degrees in from the Psychology Department at the University of Georgia. While at the University of Georgia, Dr. Renzi specialized in neuroscience and neurological development and studied the ways in which implementing behavioral changes influenced neural growth and development, as well as risk for acquired neurological diseases. Dr. Renzi completed her postdoctoral fellowship at the University of Texas at Austin and combined her neuroscience and perceptual foci with nutrition science by spanning three different disciplines at Texas: the Center for Perceptual Systems, the Institute for Neuroscience, and the Nutrition Sciences Department. Dr. Renzi served as a visiting scientist at the Jean Mayer USDA Human Nutrition Center on Aging at Tufts University in Boston, MA, where she was a member of the Carotenoids in Health Laboratory.



Lynn Miller, MA, CMT works as a music therapist in a Philadelphia hospital. She is a staff member for *Music for People* and *Flute Haven Native Flute School*. She is a former adjunct faculty member at Immaculata University in PA. She has taught music therapy at Bangalore University and several hospitals in India as well as conducted workshops at Omega Institute and retreat centers across Europe. Lynn has also created murals nationally and internationally in hospitals, communities and retreat centers. Lynn is the author of *SpiritArts: Transformation through Creating Art, Music, and Movement*.



Lynn Saltiel is a Licensed Clinical Social Worker and a Certified EMDR Therapist currently in private practice. She has over 20 years of clinical experience working in diverse settings including hospitals, community health, psychotherapy practices, and employee assistance programs. Lynn holds her Masters of Science in Social Work from Columbia University and has been an Instructor for the National Association of Social Workers-New Jersey Chapter (NASW-NJ), since 2002. She presents for many Fortune 500 companies providing employee health and wellness seminars. Lynn developed and facilitated community programs for The Women's Project, servicing and empowering at risk women utilizing music and the creative arts. She is a musician trained in the use of facilitation and music improvisation techniques. Lynn is a member of the Open Music Ensemble in NYC and has presented at Flute Haven Native Flute School, NASW-NJ, New Jersey City University and the Globe Sound Healing Conference.



Madaleen Botha obtained an Honours degree in Music from the University of Pretoria, South Africa in 2009, where after she spent a semester in 2010 at the University of Jyväskylä, Finland in with studies in Music Psychology. In 2012 she achieved her Honours degree in Clinical Psychology from the North-West University, South Africa, and she continued her psychology studies with an MSc degree in Clinical Psychology at Goldsmiths, University of London from 2013-2014. She recently completed her MMus degree on Perfectionism in South African university music students, and intends, if her sanity does not return, to pursue a PhD in a related field.



Mahesh George Valiavila is a PhD Scholar at SVYASA University Bangalore, India, working under the supervision of Professor Alex Hankey. His research interests include music and brain plasticity, meditation and cognition, ethnomusicology, music and palliation, mind-body medicine and rehabilitation of substance users. Currently, he is working on mapping the neural correlates of *ragas* and the different emotions/mood states associated with specific *ragas* and mindfulness meditation. He is an Indian classical musician with *ghazals* and contemporary music being his forte. He is Co-founder of Let There Be YOGA, a start-up based in Bangalore.



Mara E. Culp is a Ph.D. candidate in music education at Penn State. She earned a Bachelor's of Music Education from Siena Heights University in Adrian, MI and a Master's Degree in Music Education from Penn State. She taught K-12 general, choral and instrumental music in MI for five years. Her experiences teaching elementary general music students with speech impairments led to her primary research interest in speech acquisition through vocal music experiences for young children. She has presented original research across the country at state, national, and international conferences; presented as an invited lecturer in the Communication Sciences and Disorders department at Penn State; and has published work related to improving speech sounds using music in the *Orff Echo*.



Mary Milroy is the country's leading expert in Biophotonic Imaging and uses the Gas Discharge Visualizaization (GDV) camera to study the human energy field. She is also a Certified Colorpuncturist. Presented at the Naval Research Lab, Washington D.C. THE SOUND OF COLOR: Improving the Overall Health of Military Personnel Through Sonic and Biophotonic Protocols. January 2011.



Megan M. Smith, MA, MT-BC is the co-founder and executive director of Alice's Encore: Community Music & Mindfulness, Inc., a nonprofit organization in Rochester, NY. She is a music therapist currently working with children and adults in educational, medical, behavioral health, and private settings. She is also an adjunct faculty member in the Music Therapy Department at Nazareth College. Megan's area's of interest are found at the intersection of music therapy and mindfulness, and the depth of interpersonal healing that can occur there. Her research has included group music therapy for empathy and self-esteem development in children, and development of a model for music therapy in the

Pediatric Emergency Department.



Mary Elizabeth Campbell, CAGO, MAMT-BC 'Mib' has her BA from Wilson College in Chambersburg in 1980, where she majored in Organ Performance and Religion Studies and minored in Psychology and Fine Arts (always one to have trouble making choices...) After Wilson she studied organ with Claribel Thomson in Ardmore, PA, completed an MA in Social Gerontology at the University of Pennsylvania in 1984. She worked in the adult day care field from the 1980's until 1994, serving as director for the Devon Manor Adult Day Center and subsequently the Tel Hai Adult Day Center. She left full time work when her first husband died, and at that time earned her second MA in Music Therapy at Immaculata in 1997. She currently does part time group therapy in the intensive mental health outpatient department of Creative Health in Pottstown. She has been affiliated with 'A Touch of Music,' a music therapy provider in Pottstown, since 1995, and consults at several agencies for them, running music therapy groups with populations ranging from older dementia and stroke patients to developmentally disabled adults with a wide range of abilities. She has supervised many music therapy interns as part of Touch of Music through the years. In 2007 and 2008 she was trained in EMDR by Dr. Laurel Parnell, including advanced level clinician training, and since that time has seen some private clients for EMDR. She also teaches part time for the Community Health Education Department at Phoenixville Hospital. Her dog, Mungo, is a volunteer Therapy dog through 'Therapy Dog, Inc.', and does many groups with her. She also teaches piano privately. Mib directed music for St. Basil the Great Catholic Church in Kimberton since 2001, with adult and children's choirs, bell choir, organ - her final day is this Sunday, March 15. She was organist at 1st Presbyterian in Phoenixville from 1993-2001 and has been involved with the Philadelphia Chapter of the American Guild of Organists since 1980, including Executive Committee and editing Crescendo Magazine. She is also involved with Leukemia Lymphoma Society's Team in Training since 2008, finding it a wonderful way to keep in shape while raising money to fight cancer - Mib is training for the Philadelphia Triathlon this June.



Merinda Lowry is an upcoming fourth year student at the University of Georgia completing a Bachelor's of Music Therapy. She has studied piano for 13 years and is currently studying under Dr. Evgeny Rivkin at the HHSOM. She is originally from Valdosta, GA where she began teaching a wide range of piano students. She has also served as the accompanist for many adult and children's choir and currently is the organist in her local congregation at The Church of Jesus Christ of Latter-Day Saints. Throughout her course work for music therapy, Merinda has worked with several populations including adults with intellectual and developmental disabilities, adults in a substance abuse program, children with autism, and teens with intellectual and developmental disabilities.



Naejeong Suh (Ed.D, University of Georgia) was born and raised in Seoul, South Korea. She has taught general and instrumental music in elementary and middle school in South Korea. She also has worked as a concert violist, performing numerous recitals and participating in band and orchestra in Seoul, Korea, and the U.S. She holds a Bachelor's Degree in violin performance and Master's Degree in Music education from the Kyung Hee University of Korea. She also holds an Ed.D in Music Education from University of Georgia. Her research interests include the effects of music on the quality life of the healthy elderly people. Her dissertation title was "The effects of music therapy and music education on the quality of life of the healthy elderly people" She is currently looking for an internship in the music therapy field.



Peggy Tileston, MA, MT-BC, CMSII-BC, CLYL has served as a therapist and educator for the past 35 years. She is currently an adjunct faculty member in the Music Therapy Department at Temple University and has a private practice in Philadelphia. She started out studying music in college, but after taking a psychodrama class and subsequent training in the method, she switched her major to music therapy. She received her BA in Music Therapy from Loyola University in 1980 and is a board certified music therapist. She has since added a master's degree in counseling from Lesley University and training in yoga and yoga psychology, meditation, various mind-body practices, and Laughter

Yoga to her repertoire of what she considers transformational practices. She has worked as a workshop facilitator and clinician in behavioral health hospitals, mental health clinics, schools, universities, residential treatment centers and through various community and professional organizations.



Pomi Yun (Pomi) Is am currently a senior at the University of Georgia pursuing a dual-degree, my Masters in Public Health concentrating in Epidemiology and Bachelor's in Genetics. Pomi's interest in music has stemmed from my sixteen years of playing the piano. He is continuing to study music through a minor at University of Georgia as well. Pomi has a great interest in patient care and have no formal educational training in Music Therapy but have chosen to research in music therapy through a partnership with Dr. Roy Kennedy. Pomi's research in music therapy is to encourage radiation centers around the United States to incorporate music during treatment sessions to decrease negative side effects and create a more relaxing environment for the patients.



Roy Kennedy, Ph.D., MT-BC, is an associate professor of music therapy at the University of Georgia, USA. While previously providing music therapy services to various populations, his primary research interests include guitar pedagogy for music therapists, music therapy for English-as-Second Language learners, adults with substance abuse problems, and skill generalization of students with developmental disabilities. Dr. Kennedy has presented his work in the USA, Brazil, South Korea, and Costa Rica. He continues having an interest in the international development of the profession.

Steve Jackowicz, Ph.D. began his study of East Asia as an undergraduate at Harvard University. He then studied traditional East Asian Medicine at the Korea Modern School of Acupuncture and the Hand and Foot Acupuncture Institute in Seoul. During that time he further apprenticed in traditional physical manipulation and therapeutic breathing techniques. He then pursued a Master's Degree at the New England School of Acupuncture. Dr. Jackowicz became fascinated with the divergence of Chinese, Japanese, Korean, and Vietnamese medicine and studied for a Ph.D. at Boston University examining the historical evolution of East Asian Medicine. His research has taken him to China and Japan. Dr. Jackowicz has taught at Tufts University, Boston University, New England School of Acupuncture, and Pacific College of Oriental Medicine. He has published on East Asian Medicine, Daoism, and history. He currently serves as faculty in the History Department of Adelphi University.

Musical Performances



Angela Falco, pianist, flutist, composer, educator and music therapist, shares a gift for composition that allows her to express herself through the power and beauty of music. Her goal is to touch the hearts of her listeners and to heal people with her songs. Angela earned a Masters Degree in Music Therapy and Certification in Special Education from Immaculata University, where she was a former faculty member. Memorable performances include playing flute for former U.S. President Bill Clinton and an acknowledgement by the Grammy Association for her flute and piccolo contributions to the soundtrack song selection "Reach Out" in the two-time Grammy award winning documentary *Standing in the Shadows of Motown*.



Mahesh George Valiavila has been invited to perform from Bangalore, India. He is an Indian classical musician, with ghazals and contemporary music as his forte. He is a co-founder of Let There be YOGA where he practices Raga Therapy. Mahesh is a PhD Scholar at SVYASA University Bangalore, India. Currently, he is working on mapping the neural correlates of *ragas* and the different emotions/mood states associated with specific *ragas* and mindfulness meditation.



SpiritGrass is a unique collaboration with mandolin jazz and bluegrass artist Eric Miller, Native American flute troubadour Clint Goss, world music vocalist and guitarist Lynn Miller and percussionist extraordinaire, Ron Kravitz. SpiritGrass is a fusion of progressive bluegrass styles with world music from beyond this world. Members of this group are masters in improvisation. SpiritGrass will have guest appearances with David Akombo on djembe, Arthur Harvey on piano and Roy Kennedy on guitar.



Music for People Improv Orchestra is an improvisational orchestra orchestrated by Ron Kravitz and Lynn Miller which includes vocalists, a dancer, storyteller and an array of traditional and world-instruments. The members create "Music-in-the moment" with audience participation included. *Music for People* is an organization which hosts musical training in music improvisation. <http://musicforpeople.org>

ABSTRACTS

raga Therapy: The Indian Music Therapy, Treatment with Ragas

Mahesh George, SVYASA University, India

Learn about the evolution of the Indian Classical system of music, *ragas* and their importance in various healing traditions. The potential of vibrational energy and its channelization through the body will be discussed and demonstrated through evidence based practices with an emphasis on *nadanusandhana* and the Mind-sound resonance technique (MSRT). Vedic and Gregorian chants will be demonstrated with application of how they are used for rehabilitation. [The author can be reached at maheshyogi25@gmail.com]

Appraising Emotions Post Raga Intervention: The Ability of Ragas in Managing Mood States

Mahesh George

SVYASA University, India

Objective: To appraise the emotions post-*raga* interventions, and to explore the application of select *ragas* in their ability to invoke desirable mood states.

Mode of study: Mixed methods, employing both qualitative and quantitative methodologies.

Methods: It is described in great detail in the classical text (*silappadikaram*) about the various Indian classical *ragas* and the *Rasa*(emotion) each individual *raga* evokes. For this study, 9 Indian classical *ragas* are selected, the *ragas* and the particular emotion it evokes are as given below:

<i>Raga</i>	(Emotion)
<i>Natta</i>	(Ecstasy/hyperactivity, feeling happy and vibrant)
<i>Saramati/Charukesi</i>	(Devotion, connection with God, reflections of one's life, near-death period)
<i>Mohanam</i>	(Happiness)
<i>Yamankalyan</i>	(emphatic ; happiness)
<i>Shubhpanthuvarali</i>	(sadness, remembering the bereavement of a loved one)
<i>Bhoopalam/Bowli</i>	(elegant dawn/dusk experience)

15 healthy subjects will be recruited for the study in the age group (25-35 years) and each person will be given a select Indian Classical Raga Intervention (ICRI) for about 10 minutes, with GSR (Galvanic Skin Response) sensor connected to the forefinger, and the physiological data such as EDR/GSR, HRV, BVP will be recorded in the Interfaced Computer Software Database (ICSD). Gas Discharge Visualization (GDV) equipment will be used to measure the prana/chi/energy fields in each subject post ICRI and data will be recorded in the ICSD. Following the ICRI, in-depth detailed interview of the subject will be taken. Once the study is completed with the recruited 15 subjects, 8 subjects randomly chosen from the same group will be assembled together and ICRI will be done, and GDV recordings of each individual subject will be performed, and Focus Group Discussion(FGD), with those 8 subjects will be conducted and videotaped, and the experiences, will be studied and the common theme, and the aspects which are commonly described and those which are not commonly described, i.e., unique experiences/comments will be studied and recorded in detail. The neural correlates of these *ragas* will be studied in detail using pre-post fMRI study and will look to correlate the findings with simultaneously acquired EEG. The functional differences in the activation regions, between normal healthy subjects and advanced meditators post ICRI (we hypothesize an increased coherence length/span post ICRI in advanced meditators) is another prospect of this study. [The author can be reached at maheshyogi25@gmail.com]

MUSICAL COGNITION, EMOTION AND IMAGERY: EAR WORMS

Dan Kruse, University of Arizona, USA

Ever have a song stuck in your head that won't go away? That's an "ear worm," also known as Involuntary Musical Imagery (INMI). Over ninety percent of people experience ear worms weekly; many experience them several times daily. Why do ear worms happen? Why does the perception of music persist long after hearing it? Why is INMI an ideal subject for scholarly examination and documentation? Ear worms offer a valuable window to a richer understanding of the human relationship to music, allowing us to examine how sensory input, emotion and brain

processes create (and re-create) a perceptual experience. While scholars have studied "INMI onset" for several years (Williamson et al, 2011), this 2014-15 study considers the question of *why ear worms persist* as a perceptual experience. This interdisciplinary project examines INMI from the perspectives of music theory, perceptual/cognitive science and the "reported ear worm experience", plus the creation of a compelling PBS-style documentary film.

Interdisciplinary Model, 2014-15 INMI Research

Background: Ear worms allow us to examine how sensory input, emotion and brain processes create (and re-create) a perceptual experience. They are a

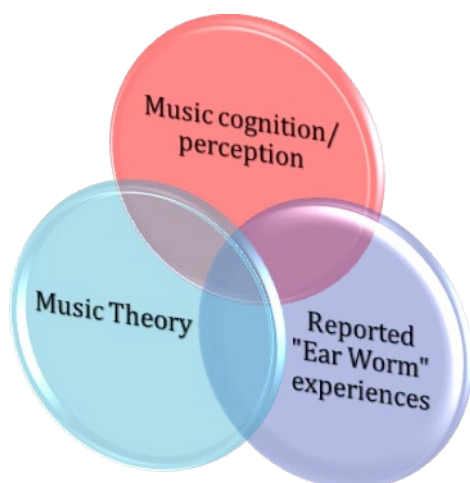
particularly salient outcome of the interaction of input structure and processing, involving not just the recall of information, but persistent (often involuntary) *re-experiencing of musical perception* without recurring external sensory input. These perceptual recurrences may be related to recent research in auditory neuroscience, suggesting the importance of neural oscillations and "neural loops" between the brainstem and cortex in the perception of complex sounds such as music and speech. In the present study, several questions guide our efforts: Does the frequency or severity of INMI in specific individuals likewise correlate with musical/emotional sensitivity or perceptual abilities? Are "ear worms" simply an annoying, obsessive occurrence, or instead a "working out" of emotional or cognitive issues on an entirely different level? What are the reported commonalities of this experience among a diverse group of subjects?

Interdisciplinary Methodology: Our study's interdisciplinary approach grows from the inherently interdisciplinary nature of the question. One must accurately describe the structure of different musical passages, measuring the variety of personal experiences with music and differences in hearing/cognitive processing, and documenting the results in a way that can be broadly accessed by both scholars and lay persons.

Our study includes the following:

- On-line surveys to gather demographic and experiential data from subjects experiencing INMI
- Laboratory assessments of subjects' music perceptual abilities
- An examination of musical elements – melody, harmony, form, rhythm – which may be particularly "ear worm-worthy"
- Structured interviews examining the subjective experience of INMI
- A documentary film (presented with this paper) to support community outreach on a subject of wide interest to scholars and music lovers in general

Outcomes: The project's unique vision is to examine the ways in which these divergent perspectives intersect with one another, and to develop unique insights regarding the experience of INMI that may be of value to cognitive/perceptual scientists, and to music theorists, educators and therapists. [The author can be reached at krused@email.arizona.edu]



PERFECTIONISM, ACADEMIC MOTIVATION, AND PERFORMANCE ANXIETY IN SOUTH AFRICAN UNIVERSITY MUSIC STUDENTS

Madaleen Botha, University of Pretoria, South Africa

Perfectionism is often associated with the positive characteristics of motivation, effort, and achievement. However, perfectionism encouraged by the views of others may result in increased anxiety levels. The debilitating effects of socially prescribed perfectionism frequently cause inferior academic performances of undergraduate university students. The aim of the study is to examine whether and to what extent perfectionism is related to academic motivation and to performance anxiety in BMus and BA (Music) students. A total of 93 music students from four South African universities' music departments participated in the study. Students are compared in terms of perfectionism, academic motivation, and performance anxiety, and the correlations between these traits. Confounding variables such as the university of attendance, type of music degree, academic year, gender, home language, and first instrument are taken into account. The study follows a quantitative survey design consisting of the Multidimensional Perfectionism Scale, the Work Preference Inventory, and the Performance Anxiety Inventory. Strong positive correlations were found between the Concern over Mistakes subscale of Perfectionism and the Extrinsic Motivation/Outward-dimension. The Personal Standards subscale of Perfectionism showed moderate to strong correlations to the Intrinsic Motivation/Challenge and Extrinsic Motivation/Compensation dimensions. The BA (Music) students scored significantly higher than the BMus students in Performance Anxiety, Parental Expectations and Parental Criticism. Students from the Other language group scored significantly higher in both the Perfectionism subscales of Parental Expectations and Parental Criticism. The study provides valuable insight into the perfectionistic trends and its effect on motivational orientations in South African undergraduate music students, particularly the differences between the BMus and BA (Music) degrees, which has not yet been investigated. The study verifies various inter-correlations between aspects of perfectionism and motivation with specific emphasis on the parental dimensions of perfectionism. **Keywords:** Perfectionism, academic motivation, performance anxiety, music students, intrinsic, extrinsic, South Africa, university [The author can be reached at madaleen7@gmail.com]

SACRED SCALE MUSIC TO TREAT DISORDERS RELATED TO PAIN, ANXIETY AND DEPRESSION

Carla Rose Kelly, Royal Conservatory of Canada, CANADA

This workshop introduces participants to the Sacred Scale for treating disorders with music. The Sacred Scale is 9 specific frequencies all in tune with the laws of nature, all in tune with the human body. Previous research on the Sacred Scale showed that these frequencies were effective in lessening symptoms of pain, anxiety, and depression. Our newest research was conducted on specific disorders including rheumatoid arthritis, chronic pain and migraine. The results showed that participants in all groups reported less pain after only three sessions. Results of both studies will be presented as well as plans for future research. Participants will receive a handout explaining the study results as well as the history of the Sacred Scale. The workshop will involve two sections. In the first part of the workshop, quantitative research results will be presented as well as a theoretical background of the Sacred Scale. The second part of the workshop will involve an experiential session where participants will be exposed to a typical session and be able to experience what happens in the body as well as ask questions about methodology and administration of this type of healing. [The author can be reached at info@carlarosekelly.com]

CAROLYN GRAHAM'S JAZZ CHANTS

Roy Kennedy, Ph.D., The University of Georgia, USA

The purpose of this paper was to write a descriptive analysis of Carolyn Graham's jazz chants and to provide supporting evidence from music therapy studies that used the strategies and techniques of jazz chants to teach English as-a-Second Language (ESL). I interviewed Ms. Graham via email communication, reviewed several of her jazz chants books and accompanying CDs, and summarized evidence from experimental and qualitative music therapy studies that used

strategies and techniques created by Graham to teach ESL. She originally created jazz chants as a language acquisition tool, which emphasized the rhythmic and intonation patterns of Standard American English as it occurs in situational contexts. Jazz chanting also immerses ESL students in expressing feelings in situational contexts by emphasizing the stress and intonation of the language while simultaneously building vocabulary that is used in everyday conversations. Most of the jazz chants are presented in two-part dialogue form as the teacher engages the class in call and response activities. Several studies in the music therapy literature provide evidence that the strategies and techniques used in jazz chants language are effective when used in music therapy interventions as supplemental ESL teaching techniques. The results of these studies indicated that the pairing of second language information with music listening, group chanting, singing, playing simple percussion instruments, and movement to music activities were effective music therapy interventions used as supplemental teaching techniques in ESL classes. In addition, pairing language information with singing and sign language activities were effective strategies in assisting Kindergarten ESL students to acquire vocabulary words as well. Overall, the results of implementing music therapy interventions as supplementary and/or primary teaching techniques were effective for teaching ESL skills to Kindergarten, elementary, and middle school students. Furthermore, alternative second language instruction that is interesting and engaging is needed for public school students that have Limited English Proficiency (LEP). Students with LEP have difficulty in speaking, reading, writing or understanding the English language and these deficits severely impede their progress in learning academic subject matter in schools where English is the only language of instruction. In addition, many students with LEP are stymied in ineffective ESL classes. In fact, experts in the ESL research literature recommend the use of comic books, audiotapes, videotapes, and other “extra-linguistic” materials as supplemental teaching strategies that may enhance ESL students’ acquisition of a second language. There is corroborating evidence in the music therapy literature that supports the idea of using music therapy interventions in combination with extra-linguistic information such as sing language and movement to music interventions, which may engage ESL students in engaging and interesting alternative ESL instruction. In fact, music therapy studies that offer alternative, supplemental, primary ESL instruction employ the basic philosophy, strategies, and techniques of Carolyn Graham’s jazz chants which include rhythmic repetition, chunking of language information paired with melodies and chants, and modifying the affect of second language learners as useful strategies in ESL instruction. [The author can be reached at rkennedy@uga.edu]

EFFECTS OF CANCER PATIENTS LISTENING TO THEIR PREFERRED MUSIC ON CLAUSTROPHOBIA, ANXIETY, AND NAUSEA DURING RADIATION TREATMENT

Pomi Yun¹
Roy Kennedy¹

¹University of Georgia, USA

Purpose: The purpose of this study was to investigate the effects of cancer patients listening to their preferred music on claustrophobia, anxiety, and nausea during radiation treatment. Patients with head and/or neck cancer may experience claustrophobia as a result of having to wear a mask during their radiation treatments and; in general, many patients with cancer below the head have anxiety and nausea as a result of anticipating and receiving radiation treatments as well. **Method:** This quasi-experimental pilot study includes a single group of volunteer participants who have been exposed to music during their treatments. The participants were asked to indicate their preferred artists and songs, which were played via Pandora on an iPod during their radiation treatments. Initially, customized playlists were created for the patients; however, the patients quickly became exhausted of the music and asked for more variety. Through artist-preferred playlist provided by Pandora, the patients were more satisfied. Data was collected via paper and pencil questionnaires for the dependent variables anxiety, claustrophobia, and nausea. The researchers and nurses sat with patients prior to and after their first radiation treatment and final radiation treatment to assist the patients with any questions about the questionnaires. Only patients that could not cognitively understand the questions after the researchers read the questions aloud and gave repeated prompts were excluded from participating in the study. Since the treatment room was very small, the patients’ preferred music was played on an iPod through connected speakers. The radiation therapist controlled the music source during each patient’s treatments. The researchers calculated scores from the questionnaires and compared the scores from the time prior to the first treatment to the time after the last treatment. **Results:** Seven out of thirteen patients (53.8%) showed a decrease in suffocation related to claustrophobia. Ten out of thirteen patients (76.9%) showed a decrease in restriction related to claustrophobia. Eight out of thirteen

patients (61.5%) showed a decrease in levels of anxiety. Nausea showed no changes or was never present throughout the treatment period. The researchers recorded qualitative comments that the patients made before and after treatments, which provided additional information concerning their experiencing of the dependent variables. **Conclusion:** The results of this study may be of use to music therapy professionals that work with cancer patients undergoing radiation therapy. The majority of music therapy studies with cancer patients focuses on those undergoing chemotherapy treatment. In addition, no music therapy studies were found that specifically investigate the effects of patient preferred listening on the claustrophobia of cancer patients. **Keywords:** *music therapy, patient preferred listening, cancer, radiation treatment.* [The author can be reached at pomiyun@uga.edu or rkennedy@uga.edu]

A WEB OF RESONANCE: AN EXAMINATION OF CHINESE BELL THERAPY

Steve Jackowicz, Ph.D., University of Bridgeport, USA

The Chinese *Bian Zhong* Bells are calibrated to the sexagenary cycle of traditional Chinese music theory which posits a relationship between the organs and meridians recognized in Chinese medicine, and the application of notes and sequences of notes in proximity to the body. Such notes and sequences were traditionally prescribed to change the state of health, both physical and emotional, following a specific schemata of interaction. In the Chinese medical text the *Yellow Thearch's Inner Canon (Huangdi Neijing)* there is a schema of interaction of notes in singular and combination that are used to affect the meridian system. This paper examines a quantitative model of assessing the impact of this methodology on the body. Patient survey, Kosato Method Pulse Analysis, range of motion assay, and thermal spectrography are tested before and after the application of the sound therapy. The paper further discusses models of potential interactions which could account for the observed metabolic changes. Following the results of this research, the paper presents a protocol for the use of the principles of this traditional methodology for application in the clinical arena of modern music therapy. [The author can be reached at stevejackowicz@gmail.com]

SPIRITUAL HEALING AND EXORCISM: MUSIC AS A CATALYST IN SACRED SPACE

Weldon Cochren, Independent Scholar, USA

The focus of this paper is to explore the possibility of music and its causality in spiritual healing, and exorcism in the Pentecostal Church within the African Diaspora. The term "spiritual healing" as opposed to just "healing" is used to indicate 1) an event that would occur in the realm of the miraculous or super-natural; and 2) an event that should not be misconstrued as the result or process of Music Therapy, as some have perceived or concluded David's musical encounter with King Saul to have been (1 Samuel 16:23). Biblically, there is no evidence of music being incorporated into the ministry of spiritual healing or exorcism of Jesus or the Apostles, yet music has become an integral component in Pentecostal churches throughout the African Diaspora (Continental Africa, North America, Brazil, United Kingdom, Caribbean and Virgin Islands). Music for spiritual healing also is also prevalent in many communities that are not contained or confined in churches. This is evident in the countries of Haiti, Mali, and USA. This paper will endeavor to answer the following questions: Does a particular genre or style of music have a greater impact in the sacred space than others? Is there a particular spiritual position or comprehension that musicians and singers should occupy or obtain to achieve the desired outcomes? Does the cultural or worship community have an influence on the musical expression, e.g., instruments, lyrical content, language?

Does meter, tempo, key, or pitch affect the outcomes? Does the "patient" have to be a Christian? Is there a preparation and treatment for the instruments used in the rituals or ceremonies? What is the training or conditioning process for the musician(s)? **Conclusion:** The transporting of sicknesses associated with spiritual oppression, spiritual possession, physical ailments, psychological/mental distress, or biological toxins from a human can be facilitated through or assisted by music, with certain exceptions and stipulations. **Keywords** Spiritual healing Exorcism Sacred space. [The author can be reached at wcochren@hotmail.com]

MUSIC IMPROVISATION SKILLS: THERAPEUTIC TOOLS FOR RESOURCE DEVELOPMENT IN CLINICAL PRACTICE

Lynn J. Saltiel, Hudson Psychotherapy and Consultation, USA

Mental health and allied professionals are often conduits for fostering hope and change in clients that present multiple complex clinical concerns within multiple practice settings. In this experiential workshop, participants will be introduced to universal music and movement improvisational structures and techniques for building individual resiliency, interpersonal communication skills, as well as creative self-empowerment. Relevant theoretical literature will be reviewed. Several case examples will also be included highlighting clinical applications from a women's therapeutic support group within the context of an urban outpatient community mental health center. This workshop will offer a humanistic philosophical approach to music making which holds the belief that innate music making is an available tool for everyone to enhance health and wellbeing. Improvising is creating spontaneously an experience in the moment. To improvise takes courage and authenticity. When we improvise, we face the unknown. This process can help one face their fears, developing courage and trust. Self-expression can lead to self-actualization and a sense of building mastery over one's abilities that can generalize to other life experiences leading to self-growth and empowerment. The skills that encompass sound therapeutic practice are mirrored in similar skills that make up shared musical practice such as deep listening to self and others, supporting, trusting, mirroring, reflecting, releasing judgment, being in the present moment, authenticity, attunement and connection. Additional psychological benefits include a greater sense of community and belonging through this shared experience, development of social skills and interpersonal interaction. In conclusion, this workshop will provide an overview and introduction to music improvisation skills as a therapeutic tool within a safe, supportive, and creative environment. [The author can be reached at jllynncsw@gmail.com]

**GROUP MUSIC THERAPY AND MINDFULNESS TOWARDS SELF-AWARENESS AND EMPATHY DEVELOPMENT IN CHILDREN:
A MIXED METHODS PILOT STUDY**

Megan Smith, Alice's Encore: Community Music & Mindfulness, USA

The primary purpose of this pilot study was to determine what effects, if any, participation in a 10-week music and mindfulness program had on a group of school-aged children, by measuring: mood, cooperation, confidence, helpfulness, perceptions of empathy and bullying, and feasibility. This preliminary study implemented a mixed methods design in which baseline data was collected, pretest and posttest surveys were compared, and participant feedback and observational reports were incorporated. The authors propose that a powerful and effective space is created for expression, awareness, and compassion at the intersection of mindfulness practice with group music therapy. The study was conducted at an afterschool program located in a suburban school-district in a mid-sized city. Participants were 8 children ranging in age from 7-12 with no prior music therapy or mindfulness experience. The group was conveniently sampled due to clinical setting. The study examined a program consisting of ten weekly 45-minute mindfulness-based music therapy groups co-lead by music therapists. Typical interventions included instrumental improvisations, self-regulatory check-ins, songwriting, verbal processing, creative movement, mindfulness meditations, and specifically designed instrumental activities. The quantitative findings reveal positive trends in mood, cooperation, confidence, and kindness. Results for hypothetical bullying situations were not valid. In the qualitative analysis, themes of increased confidence and learned techniques for mood expression, a meaningful understanding of empathy, and an increased awareness of how to positively treat others emerged. Additionally, there was an overwhelming interest reported by participants regarding participation in future music groups. Despite the limited rigor in this preliminary pilot study, the data suggests that this program is feasible and potentially beneficial for elementary-aged children. Recommendations for further research including generalization of results are discussed, as well as the program's growth and evolution into a community organization. [The author can be reached at msmith7@naz.edu]

THE EFFECT OF MUSIC ON IMPULSIVITY IN COLLEGE UNDERGRADUATE STUDENTS WITH ATTENTION DEFICITS

Laura Dunbar, Ph.D., University of Wisconsin-Eau Claire, USA

The purpose of this study was to investigate the effect of music listening on impulsivity as judged by the Conners' Continuous Performance Test (CPT) II v. 5. College undergraduate students were recruited into one of two groups and were administered a computer task (CPT) to complete in an initial condition, a music condition, and a silence condition. One group of participants had no diagnosed history of ADHD while the other participant group had a history of ADHD. The initial condition served as an opportunity for each participant to take the CPT with the researcher present to allow each participant to ask questions before taking the test alone; each participant was then taken to a separate testing room. As all participants were tested in all three conditions, the remaining two (music and silence) were randomly assigned to control for order effect. The music condition involved taking the CPT alone in the testing room with "In a Mellow Tone" by Count Basie playing in the background during the test administration. The piece was manipulated to have a tempo of $mm = 124$ and looped to last the entirety of the CPT (14 minutes). Each participant was administered the CPT in a silence condition, in which the participant was alone in the testing room without other provided stimuli. The final sample was $N = 51$ with $n = 26$ enrolled in the typical group and $n = 25$ enrolled in the group with attention deficits. A significant main effect difference was found by group: the typical group exhibited lower impulsivity levels as compared to the ADHD group based on Commission mean scores. Additionally, significant main effect differences were found by condition (initial, music, and silence). Both the factors of group and condition appear to be independent as no interaction was found. Implications and suggestions for future research were discussed. [The author can be reached at DunbarLL@uwec.edu]

A QUALITATIVE INVESTIGATION OF SPEECH-LANGUAGE PATHOLOGISTS' AND MUSIC EDUCATORS' TECHNIQUES

Mara E. Culp, The Pennsylvania State University, USA

Many techniques speech-language pathologists (SLPs) use to improve speech sounds are akin to techniques general music educators (MEs) use; however, music educators and SLPs may not recognize ways in which their techniques are similar. The purpose of this study was to examine possible similarities among techniques used by SLPs and MEs that could improve speech sounds. This study also sought to compare and contrast the perceptions of SLPs and MEs about using musical techniques to improve speech sounds. Using a modified multi-case study approach, I observed and interviewed two SLPs and two MEs over a period of three months. Preliminary findings seem to indicate that SLPs and MEs use musical elements with students to enhance a student's performance on speech-related tasks. Music educators intentionally utilize musical elements to improve student's enunciation on text used in class and do not necessarily seek to help students generalize these enunciations to conversational abilities outside of their music classrooms. Speech-language pathologists unintentionally utilize musical elements to improve student's articulation on speech sounds and seek to help students generalize these articulations to conversational abilities outside of their speech-language spaces. Understanding that SLPs may not recognize the musical elements they use can help MEs foster collaborations with SLPs. Music educators could open conversations with SLPs that help SLPs identify the musical elements they use and suggest ways in which musical elements could be used to encourage musical and language development across a student's lifetime. [The author can be reached at MaraCulp@gmail.com]

THE RELATIONSHIP BETWEEN PHONOLOGICAL AWARENESS AND MUSIC APTITUDE

Mara E. Culp, The Pennsylvania State University, USA

Previous research studies have pointed to connections between language development and musical development (Dege&Schwarzer, 2011; Forgeard, Schlaug, Norton, Rosam, Iyengar, et al., 2008; Moritz, Yampolsky, Papadelis, Thomson, & Wolf, 2013; Tierney & Kraus, 2013). The purpose of the present study was to discover the relationship between phonological awareness and music aptitude. To examine this relationship, The Phonological Awareness Test 2 (PAT-2) (Robertson & Salter, 2007) and the Intermediate Measure of Music Audiation (IMMA) (Gordon, 1986) were administered to students in two second-grade classes in a rural elementary school in Pennsylvania. Prior to formal

testing, a trained specialist administered an individual hearing screening to each participant. Speech-language specialists administered the PAT-2 individually to participants and scored the measure. The primary researcher (a music specialist) administered the IMMA to participants in groups and scored the measure. Student scores on the two measures were analyzed using t-tests to determine mean differences between groups, Pearson product-moment correlations to examine existing relationships, and linear regressions to establish the predicative potential of IMMA scores for PAT-2 scores. Findings from this study indicate a strong positive relationship exists between PAT-2 standardized composite scores and IMMA raw composite scores ($r = .541$, $p = .025$) as well as IMMA raw tonal subtest scores ($r = .526$, $p = .03$). A linear regression helped the researcher determine IMMA raw tonal subtest scores were reasonable predictors of PAT-2 standardized composite scores ($R^2 = .277$, $F(1, 15) = 5.742$, $p = .03$). A stepwise linear regression helped determine IMMA raw composite scores were reasonable predictors of PAT-2 standardized composite scores ($R^2 = .293$, $F(1,15) = 6.207$, $p = .025$) and slightly better predictors than IMMA raw tonal subtest scores. The predictive potential of IMMA scores for PAT-2 scores seems to indicate improving music aptitude early in life may naturally improve phonological awareness – a foundational skill that may affect students' literacy throughout their lives (Bauman-Waengler, 2012). Results may provide support that musical practices taking place in music classrooms support phonological awareness. [The author can be reached at MaraCulp@gmail.com]

BIO-GUIDED MUSIC THERAPY: LIVE JAMMING FOR HEALTH WITH REAL-TIME PHYSIOLOGICAL DATA

Eric B. Miller, Ph.D. MT-BC BCB, Montclair University Music Therapy David Ott Lab, USA

This course reviews the fundamental concepts of Bio-guided Music Therapy (Miller, 2011, Jessica Kingsley Publishers of London). Focus is on utilizing real-time physiological data-driven music therapy for stress, anxiety, hypertension, ADHD, Raynaud's, & other disorders. In this workshop format, participants gain hands-on experience creating musical environments based on heart rate, skin conductance and EEG brainwaves. This presentation presents fundamental concepts of Bio-guided Music Therapy (Miller, 2011, Jessica Kingsley: London). The course provides the music therapy practitioner with a rationale, historical context and detailed step-by-step, how-to instructions for utilizing real-time physiological data driven music therapy. Interventions are outlined for various purposes and populations. Some of the target complaints discussed include, stress, anxiety, high blood pressure, migraine, Raynaud's disease, neuromuscular deficits, ADHD, Autism, depression, phobias, and addictions. In this workshop format, the session delivers live demonstrations creating therapeutic musical environments based on real-time physiological output of muscle tension, heart-rate, skin conductance and EEG brainwaves. Basic concepts relating to music and the brain will be reviewed with particular attention to musical tasks related to brain structures. Applications to music therapy research and clinical documentation (e.g. for insurance companies, etc.,) will also be presented. [The author can be reached at miller@biofeedback.net]

EFFECTS OF MUSIC LISTENING ON PAIN PERCEPTION IN CANCER PATIENTS: A REVIEW OF LITERATURE

David O. Akombo, Ph.D., Jackson State University, USA

The use of music in pain management as a form of analgesia has become popular in the last half a century. Patients have demonstrated significant results in studies involving the use of music with post-operative surgery, dentistry, spinal cord injuries, pediatric treatments, and chronic pain. Regardless of the approach used to examine the effects of music listening on pain, there are many reasons why there is need for continued research on this subject. Studies in Phenomenology, Psychology, Psycho-spirituality and Physiology all bring varied empirical and non-empirical evidence to the study. Musical structures are known to emanate from mental processes. Mental processes are both psychological and physiological while varied human experiences can add other constructs such as psycho-spiritual. However, the scientific study of music and pain perception is still in its stage of infancy while the practice of music as an agent of pain control is centuries old. This paper focuses on a systematic review of published literature on the subject matter of music listening and pain perception. The areas of presentation in this paper will include studies on patients receiving cancer treatments such bone marrow transplants (BMTs). The other aspects of the literature will focus on mechanisms of the auditory

nervous system in the context of the Gate Control Theory. The last segment will focus on the implications of findings from this literature to music education. [The author can be reached at dakombo@isqrm.com]

SOUND HEALING FRONTIERS: CYMATHERAPY MEETS ELECTROPHOTONIC IMAGING

Joseph Reilly¹
Mary Milroy²

¹Clinical Director, Tune-Up Network Enterprises, LLC, USA

²Founder, Healing Hands Light Therapy Institute, Cinnaminson, NJ, USA

Sound and light are the medicines of the future making sound healing the natural domain of the music therapists practicing in the 21st Century. Come learn about the science behind vibrational medicine and see a demonstration of the CYMA 1000 and the AMI 750 bio-resonant healing devices on the Human Energy Field (HEF) using the Gas Discharge Visualization (GDV) camera.

B. Learner Objectives: 1) Participants will learn about the history of Cymatics from ancient to modern times. 2) Participants will learn how the Human Energy Field that surrounds the body can be measured. 3) Participants will have a ‘hands on’ demonstration Using two new technologies: the CYMA 1000 & AMI 750 from England and The GDV camera from Russia. **C. Description:** Every human being is a symphony! Each one of us is essentially a wonderful combination of highly organized vibrational energy systems that eventually results in our physical bodies. In addition, sound and light are becoming an increasingly important combination to generate wellness in human beings. Music therapy is now crossing over into the realm of physical healing using specific application of bio-resonant frequencies that can re-establish harmony on a cellular level. The CYMA 1000 Acoustic Massage and AMI 750 devices were created in 2004 to provide healing support for a variety of physical, mental, and emotional conditions. This technology was developed by Sir Guy Manners over the last 50 years in England. Essentially the CYMA uses the principle of sonic entrainment to re-introduce the proper frequencies to the body and can rebalance many forms of “dis-ease” using the safe and subtle energy of sound. In order to measure the efficacy of the CYMA protocols the Gas Discharge Visualization camera developed by the Russian physicist Konstantine Korotkov Is employed. The GDV takes a picture of the Human Energy Field (HEF) surrounding the body-Or commonly known as the aura The camera not only takes a biophotonic image of the human body, but also offers an enormous amount of information on the physical functioning of the human organism. This presentation will involve a brief discussion of these two technologies and how they relate to music therapy practice, as well as, a live demonstration of how bio-resonant sound positively influences the human aura. [The author can be reached at joereilly@tuneupnetwork.com or info@gdvsource.com]

BATTLES OF WOUNDED ME: AN AUTOETHNOGRAPHIC CANTATA

Allison Upshaw, University of Alabama, USA

Narrative inquiry involves the “why” as opposed to the quantitative research question “how many”. Within that narrative (qualitative) framework, critical autoethnography takes the research puzzle two steps further by asking “why me”, and then expanding the researcher’s question to “why us”. Clandinin and Connelly (2000) take a three dimensional approach to narrative lives, *Inward/Outward, Backward/Forward, and Situated within a place*. Meaningful autoethnography begins with a collection of the researcher’s life experience(s). These life experiences are then woven into a story, captivating an audience with its *Inward/Backward* focus. It is a methodological framework, itself being framed within the narrative halls of qualitative research. Critical autoethnography grabs that captivating story from the individual focus of its initial telling and, through intense examination, places it within the context of a greater knowing that now moves Outward/Forward. Performative autoethnography embodies this storied knowledge of self and enacts the knowledge of self in relation to other, thereby *situating* this Artist/Researcher/Teacher/Scholar... firmly in the present, while critically analyzing the past in order to improve the future. Performative autoethnography processed through arts based research methods is the darkroom in which I develop these snapshots of my life. Trauma theory is the frame in which they hang, and both the written and performed accounts serve as my artistic showcase, through which I hope to encourage a more embodied critique and discussion. I want readers and audience members to personify their critique through their own experiences, both triumphant and failed (Boal, 1992). Like Boal, I write with no goal or expectation of catharsis. This is not intended to provide a fairy tale ending to any issues presented, but rather this is an open processing of personal traumatic life events through a layering of arts based ways of knowing. The use of creative

writing, monologues, song, movement, and drawing as inquiry, process, and product is my way of decoding the narratives of *Wounded Me*. [The author can be reached at aupshaw1@crimson.ua.edu]

ANALYSIS AND RECOMMENDATIONS FOR TEACHING STUDENTS WITH DYSLEXIA

Kent Nelson, Ph.D., Weber State University, USA

Many of the characteristics of dyslexia—such as difficulties with decoding written symbols, phonemic awareness, physical coordination, and readable handwriting—may adversely affect music learning. Despite challenges, most individuals with dyslexia can successfully learn music. This presentation will examine: (a) the challenges and successful ways individuals with dyslexia may best learn music; (b) an overview of the general and researched-based literature on dyslexia and music and dyslexia, (c) the talents some individuals with dyslexia may possess, (d) the emotional difficulties that may be associated with dyslexia, and (d) some recent research in the field of dyslexia as it may apply to music. It is hoped that this presentation may assist teachers, parents, and students with dyslexia better understand and apply a best teaching-learning approach to music study. [The author can be reached at kpnelson@graniteschools.org]

THAT'S MUSIC TO MY EARS – THE SOUND OF LAUGHTER

Peggy Tileston, MA, MT-BC, CMSll-BC, CLYL, Temple University, USA

Resounding down through the ages have come numerous stories and prescriptions from ancient wisdom attesting to the healing powers of both music and laughter. In recent years we have benefitted from an upsurge in evidence-based research (all hail EEGs, MRIs, fMRIs, and modern technology!) that confirm the beneficial physiological and neurological effects of music and laughter. So what happens when we combine the two? As a clinician, I have had tremendous success with doing just that. There are presently no known studies that combine the two. Why not? [The author can be reached at ptileston@verizon.net]

RESEARCH RESULTS AND REFLECTIONS: THE EFFECT OF MUSIC-IMAGERY AND ART ON PROFESSIONAL BURNOUT

Lillian Eyre¹

Andrea Hunt¹

¹Immaculata University, USA

In today's healthcare environment, there is an urgent need to address job burnout because of its negative impact on medical personnel and consequently, service delivery to patients. This presentation will reflect on the research process and discuss the results of a study of the effect of music-imagery, art, and journaling on self-reported burnout for medical and psychiatric professionals. Sixty-five medical personnel who had direct patient contact participated in a two-arm randomized controlled mixed-methods trial. Quantitative measures were used to evaluate the sense of coherence and job satisfaction in nursing personnel, and qualitative analysis examined the participants' perceptions of the experience through an analysis of their journals and manadas (art and drawings in the shape of a circle). Results revealed that there were no statistically significant differences in change scores between the control and experimental groups for self-reported burnout, sense of coherence, and job satisfaction. Qualitative results on the subjects' self-report of the interventions indicated that the music-imagery and art experience helped them to relax, rejuvenate, and re-focus, enabling them to complete their shifts with renewed energy. The authors will discuss various reasons for the differences between the qualitative and quantitative results as well as implications for future research. [The author can be reached at leyre@immaculata.edu or ahunt1@immaculata.edu]

"RUÍDO ROSA" (BRAZILIAN DANCE AND MUSIC)

Juliana Azoubel, Universidade Federal de Minas Gerais, Brazil

This workshop is based on a creation process that became a performance for students at the Federal University of Minas Gerais, in Brazil. During the month of October of 2014, based on the dancer and choreographer Juliana Azoubel's own experience of fighting against breast cancer and losing her mother to it, students were motivated to use the color pink as an inspiration for the creation of movements that turned out to be a piece called "Ruído Rosa" (Pink Noise). The work is about all the many shadows of pink, about breast cancer, about women and their relationship with life, with others, and with love. In this workshop, besides showing to the participants data about the process developed with a group of twelve dancers and the many performances in the different parts of the city of Belo Horizonte, in the state of Minas Gerais, participants will have the chance to build their own creative process relating the subject with their life histories and experiences. [The author can be reached at juliana.azoubel@gmail.com]

THE DRUM SET AND CEREBRAL PALSY, MOTOR AND AFFECTIVE PSYCHOLOGICAL DEVELOPMENT

Kaleb A. Santana Ramos¹
Dr. Emma Rodríguez Suárez¹

¹Conservatory of Music, Puerto Rico

Cerebral palsy is a condition caused by a hemorrhage in the brain that can occur before childbirth until the age of three while the brain is developing. This condition is defined according to the motor skills impairment which affects muscular tone and creates limitations in movement. Moreover, this condition could cause different brain and cognitive disorders such as learning disabilities, attention deficit, emotional impairments, behavioral problems, hydrocephaly, epilepsy, and visual impairments, among others. It is very difficult for a person with cerebral palsy to learn to play an instrument such as the drum set because of the motor impairment and brain deficiencies that can limit the acquisition of the proper skills to be able to play such an instrument. The lack of data about the changes in motor skills and psychological affect using this instrument was the central purpose of this investigation. A qualitative, longitudinal case study approach was used to study the changes in fine and gross motor development as well as the changes in psychological affect in a student diagnosed with cerebral palsy who was musically educated on the drum set during a two and a half years period. Three instruments were used to obtain data: 1) observations extracted from a pedagogical diary, 2) digital video recordings, and 3) interviews to the student and the student's mother. At the end of the analysis changes were observed in both aspects studied; a significant increase in the speed on his general performance from 118 to 162 quarter note and, an increase in endurance from four minutes and 13 seconds to 45 minutes of continued performance (motor), as well as significant changes in relation to the music, music education and the student's future in the field of music (affective psychological). [The author can be reached at singingcanaries@gmail.com or KalebSantana@gmail.com]

A QUALITATIVE INVESTIGATION OF SPEECH-LANGUAGE PATHOLOGISTS' AND MUSIC EDUCATORS' TECHNIQUES

Mara E. Culp¹
Angela M. Guerriero²

¹The Pennsylvania State University, USA

²Tempo Music Therapy, USA

Many techniques speech-language pathologists (SLPs) use to improve speech sounds are akin to techniques general music educators (MEs) use; however, music educators and SLPs may not recognize ways in which their techniques are similar. The purpose of this study was to examine possible similarities among techniques used by SLPs and MEs that could improve speech sounds. This study also sought to compare and contrast the perceptions of SLPs and MEs about using musical techniques to improve speech sounds. Using a modified multi-case study approach, I observed and interviewed two SLPs and two MEs over a period of three months. Preliminary findings seem to indicate that SLPs and MEs use musical elements with students to enhance a student's performance on speech-related tasks. Music educators intentionally utilize musical elements to improve student's enunciation on text used in class and do not necessarily seek to help students generalize these enunciations to conversational abilities outside of their music classrooms. Speech-language pathologists unintentionally utilize musical elements to improve student's articulation on speech sounds and seek to help students generalize these articulations to conversational abilities outside of their speech-language spaces. Understanding that SLPs may not recognize the musical elements they use can help MEs foster collaborations with

SLPs. Music educators could open conversations with SLPs that help SLPs identify the musical elements they use and suggest ways in which musical elements could be used to encourage musical and language development across a student's lifetime. [The author can be reached at MaraCulp@gmail.com or angela@tempotherapy.com]

MANDALA, MUSIC, AND RECOVERY

Mary E. Campbell, MAMT-BC, Creative Health, Pottstown, USA

The Mandala and Music protocol was developed for use with outpatient intensive care mental health consumers, and further developed in combination with EMDR as a tool for clients in trauma recovery. Prior to creating a Mandala, clients work through issues and identify core positive beliefs. This is done through a combination of guided meditation and positive visualization with music chosen to promote relaxation, followed by discussion of possible affirmations and goals. With EMDR clients, the process has an inherent component of identifying positive beliefs about self, and often a Mandala is a natural part of therapy after several sessions, helping to summarize and affirm progress. This protocol has also been presented to 'Women for Sobriety' support groups as a single 2 hour group session. Each client creates their own Mandala, a very personal and motivational graphic image which then becomes an ongoing source of inspiration, a tangible reminder of goals and/or accomplishments, often a comfort, and source of grounding. In therapeutic sessions clients are then assisted to also frame the finished image, and frames have been created using recycled cardboard and fabric. [The author can be reached at sunflowerangels@verizon.net]

THE INFLUENCE OF PIANO TRAINING ON VERBAL MEMORY IN HEALTHY OLDER ADULTS

Anna Thorne¹

David Cromer¹

Harrison Minho Kim¹

Kevin Middlebrooks¹

Merinda Lowry¹

Roy Kennedy, Ph.D. MT-BC¹

Lisa M. Renzi, Ph.D.¹

Billy R. Hammond, Ph.D.¹

¹University of Georgia, USA

Musical training is a complex visual-motor task that has the potential to promote neuroplasticity. Piano training in older adults, for example, has been associated with improvements across cognitive domains, mood, and quality of life (Bugos et al., 2007; Seinfeld et al., 2013). Past studies, however, have not evaluated piano training in elders using a music oriented control group. The purpose of this study was to evaluate the effects of six months of piano training compared to an individualized music listening task in healthy older adults. **Method:** 23 community dwelling older adults (mean age 71 +/- 5.5 years) were recruited. Participants completed a computerized cognition battery via CNS Vital Signs (CNS Vital Signs, Inc: Morrisville, NC), as well as parts A and B of the Trail Making Test (TMT). Data from 20 participants were analyzed at baseline and post-training. **Results:** Between-subjects analysis at six months revealed that participants in the piano group had fewer commission errors on the Stroop task ($p < .01$), had higher raw domain scores in composite memory ($p < .05$) and verbal memory ($p < .05$), as well as more correct hits on delayed verbal memory recall ($p < .01$). Within-subjects analysis showed that participants in the piano group had improved raw scores at 6 months for composite memory ($p < .05$), domain verbal memory ($p < .05$), and correct hits on delayed recall verbal memory ($p < .05$), whereas scores on these measures did not significantly change for those in the listening group. Furthermore, although groups did not differ on the TMT at 6 months, the listening group did show within group differences between baseline and 6 months on the TMT Part A ($p < .01$). **Conclusion:** Piano training is associated with

improved verbal memory in elders compared to a music listening task. [The author can be reached at sathorne@uga.edu]

THE EFFECTS OF MUSIC PAIN PERCEPTION ON PATIENTS WITH SICKLE CELL DISEASE

Kristie J. Lipford, Ph.D.¹

David O. Akombo, Ph.D.¹

¹Jackson State University, USA

Although the effects of music on pain have recently been examined, very few studies have examined the effects of music on pain perception in patients living with sickle cell disease. Sickle cell disease is categorized by episodes of severe pain that mainly affects the chest, back, and legs of diagnosed individuals. This kind of investigation is greatly needed. The application of music on pain management and the control of pain has increased in the last two decades. Past studies have shown that music is an effective medium to ease pain perception and decrease the threshold of pain. Although music therapy as an established allied health profession has produced numerous empirical and qualitative data on increased frequency in medical treatments, there is a dearth of empirical research that supports the use of music on patients with sickle cell disease. In addition, many of these studies are few and findings are often contradictory. This research will be devoted to examining the effects of music on pain perception on patients with sickle cell disease. The setting for this study will include but is not limited to the State of Mississippi. [The author can be reached at kristie.j.lipford@jsums.edu or david.o.akombo@jsums.edu]

STUDENT PROJECTS IN MUSIC THERAPY & PHYSIOLOGY: FALL 2013 MONTCLAIR STATE UNIVERSITY

Eguchi, Rieko¹

Brown T. ¹

Budden L.¹

Cho J.¹

Chik D.¹

Kim H., ¹

Miller E.¹

Shanagher, C.¹

¹Montclair University, USA

This poster presents highlights of several experimental self-subject research trials conducted by music therapy students in the David Ott Laboratory for Music and Health at Montclair State University. The students explored the effects of music on physiological responses by manipulating musical elements such as instrumentation, genre, scale quality and lyrical content. Of particular interest is an experiment that utilized a 19-channel EEG brain scanner to display brain activation via 3D loreta imaging, while listening to various musical stimuli. Autonomic measures monitored in these experiments were electrodermal activity (EDA), heart rate variability (HRV), blood volume pulse (BVP) and Heart Rate (HR). The poster also presents some of the limitations that were identified by the students while conducting the experiments and their implications. [The author can be reached at miller@biofeedback.net]

THE EFFECTS OF MUSIC THERAPY AND MUSIC EDUCATION ON THE QUALITY OF LIFE OF THE HEALTHY ELDERLY PEOPLE

Naejeong Suh, Ph.D.¹Roy Kennedy, PhD.¹¹The University of Georgia, USA

The purpose of this study was to identify optimal strategies of music intervention for contributing to the mental well-being of healthy elderly people. An experimental study was conducted to evaluate the effect of music therapy and music education on three groups of participants: healthy elderly unaccompanied during treatment sessions, healthy elderly accompanied by grandchildren (ages five to seven) during treatment sessions, and a control group. ANOVA and Independent Sample T-test techniques were employed to compare the effects of music activity among the groups, while Paired Sample T-test techniques were employed to test the effects of music activity within groups. The results indicated that the unaccompanied elderly group showed significant improvements on mood, self-esteem, and depression measurements, while the group of elderly accompanied by grandchildren showed improvement only on the mood scale. These results suggest several implications for the area of music therapy and music education, especially with regard to improving the healthy elderly's self-esteem, depression, and mood as components of successful aging. **INDEX**

WORDS: Music therapy, Music education, Healthy elderly, Music intervention, Quality of life. [The author can be reached at naejeong.suh@gmail.com or rkennedy@uga.edu]

DRUMMING IN THE DARK: INTEGRATING MUSIC THERAPY INTERVENTIONS WITH TRADITIONAL HEALING PRACTICES IN HOSPICE CARE

Laura Thomae MT-BC, Keystone Hospice, USA

Historically music has been used to comfort the dying and in rituals to honor and mourn the dead. The hospice movement is growing around the world and with it an expanding awareness of the value of holistic approaches in end of life care especially music and music therapy. An increasing number of hospices are employing music therapists as research grows to support the unique role of music therapy in addressing bio/psycho/social/spiritual issues with the terminally ill. Music can provide a safe vehicle for expression and communication of grief and sorrow at end of life, it can provide comfort, ease pain, improve mood and is particularly useful when verbal communication is no longer possible. Current hospice music therapy practice draws on medical music therapy models that for the most part do not include indigenous music and healing practices. What do traditional healing methods and spiritual practices have to teach us about the use of music with hospice patients? How do we incorporate indigenous methods into current music therapy practice to improve quality of life and ultimately the quality of death? This presentation will share case examples and highlight music therapy approaches that incorporate traditional healing practices and spiritual rituals in music therapy interventions with terminally ill patients. An overview of cultural approaches to death and care of the dying will be discussed with emphasis on specific uses of music in indigenous and spiritual healing practices. Music therapy interventions discussed will include chanting, singing, drumming vs. shamanic drumming, guided imagery and visualization and the creation of ritual as means for healing. Through both didactic and experiential methods participants will have the opportunity to explore and discuss music therapy approaches that incorporate traditional healing practices with hospice patients and how these practices can contribute to quality of life with the terminally ill. [The author can be reached at lthomae@keystonecare.com]

FLUTES: HEALTH AND HEALING

Clint Goss, Ph.D.

How does playing wind instruments relate to healing and health? Can it be used as a modality for general health benefits? And can it be used for specific clinical conditions? We explore the state of the science and art as it stands today, and propose a specific practice – distinct from the goals of music performance in our society – to maximize the personal health benefits of playing wind instruments. [The author can be reached at clint@goss.com]

MUSIC IMPROVISATION BRINGING SOUL IN THE HOSPITAL SETTING

Lynn Miller¹
Brianne Wall¹

¹Music for People

In most allopathic hospitals the focus is on the physical body. A holistic approach to healing and wellness respects not only the body but includes the mind, and spirit. Music is the language of the soul. Learn about how soul expression is incorporated in the healing process at a Geri/Psyche Hospital in Philadelphia, PA. Several case studies will be presented with examples of how music improvisation is used therapeutically. This experiential workshop will include philosophy and concrete experiences to help understand the bridge of music improvisation for well-being. Improvising is creating spontaneously, in the moment. Improvisational music making can provide experiences of being present, connection with self and other, trusting and enhancing listening skills. When we improvise, we face the unknown. This process is used to help one face their fears to develop courage and trust. Psychological benefits include a sense of community and belonging through this shared endeavor developing balance and well-being. Easy to play world music instruments are used which are harmonically tuned in a Pentatonic scale that have "no wrong notes." This brings success and beauty to the patient who plays, raising self-esteem. Improvisational singing is encouraged with both verbal and non-verbal patients to encourage self-expression. Song writing interventions are also utilized for expression of thoughts and feelings. This experiential course will provide examples of how improvisational music making is used in the hospital setting. The improvisational structures will be experienced with exercises in communication, freeing inhibitions, and broadening expression. There is no need for prior music experience. [The author can be reached at Lynn@LynnMiller.org]

WORKSHOPS

MUSIC RX: JOURNEY OF EXPLORATION AND EXPLANATION

Arthur Harvey

University of Hawaii, Honolulu, USA

Scientific studies on the brain, intelligence and music confirm that music and sound have a significant impact on higher level brain function and emotional well being. It can be argued that musical intelligence probably carries more emotional, spiritual and cultural weight in human development than any other set of influences. In this workshop Dr. Harvey, one of the most venerated researchers, teachers and authors in the realm of sound and music therapy will examine and demonstrate some of the diverse approaches to the therapeutic use of music and sound and how they affect us physiologically and psychologically Through lecture, discussion, audio resources, media and experiential exercises, Dr. Harvey will help students gain a better understanding of the various uses of sound and music therapy in health care for personal and professional applications. He will also examine the distinctives of sound therapy, music therapy, music for health and music medicine. This is an experiential workshop in which students participate in adaptive and traditional music making with instrumental and vocal processes. Special emphasis will be devoted to Stress Management approaches with music and the use of music and sound to accelerate learning. Come prepared to be educated, entertained, enlightened, entrained and enriched. [The author can be reached at aharvey@hawaii.edu]

AFRICAN DRUMMING FOR YOUR HEALTH

David Akombo, Ph.D.m, Jackson State University, USA

This experiential workshop explores the auditory stimulation and ambulatory performance aesthetics caused by the transformative power of African drumming and movement for good health. The session is essentially divided into two parts: The first session provides the basic rhythmic structures of African drum rhythms from selected African regions where the participants create, recreate, and improvise rhythms based on given idioms. The second part introduces African dance elements where participants engage in ambulatory performance and learn to move to the African rhythms by improvising movements based on Afrocentric dance patterns based on lore and artistic idioms. [The author can be reached at dakombo@isqrrmm.com]

Exhibitors

SpiritArts
c/o Lynn Miller
851 Maple Av
Phoenixville, PA 19460
Lynn@SpiritArts.us

SACRED SCALE,
Carla Rose Kelly
London, Ontario,
Canada
www.SacredScale.ca

University of Arizona
c/o Dan Kruse
Tucson, AZ
(520) 661-4742

Interdisciplinary Society for Quantitative Research in Music & Medicine



Music and Medicine

Conference and Concert Series

July 24-26, 2015



Friday 07/24/15 7pm

Angela and Jimmy Falco: jazz and healing songs, piano and sax

Mahesh George Valiavilla: Indian Classical vocalist

Saturday 07/25/15 2:30pm

SpiritGrass: Native flute, mandolin, harp, Hang drum, voice

07/25/15 7pm Music for People Improv Orchestra

Concerts by donation





IMMACULATA UNIVERSITY

Immaculata University
Villa Maria: MEMORIAL HALL
1145 King Road, Malvern, PA

additional information: www.isqmmm.org

MUSIC THERAPY JOURNALS FROM THE AMERICAN MUSIC THERAPY ASSOCIATION

Oxford University Press is proud to publish
Journal of Music Therapy and *Music Therapy Perspectives*.

.....

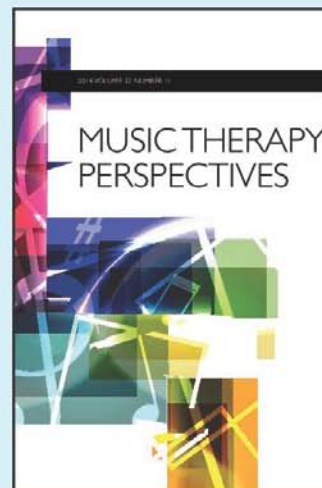


Journal of Music Therapy provides a forum for authoritative articles of current music therapy research and theory. *Journal of Music Therapy* seeks to advance research, theory, and practice in music therapy through the dissemination of scholarly work. The journal publishes all types of research, including quantitative, qualitative, historical, philosophical, theoretical, and musical concerning the psychology of music, applied music therapy techniques, perception of music, and effects of music on human behavior.

jmt.oxfordjournals.org

Music Therapy Perspectives serves readers inside and outside the profession of music therapy, promoting the development of music therapy clinical practice through the dissemination of scholarly work. *MTP* focuses on clinical benefits of music therapy, the journal strives to serve as a resource and forum for music therapists, music therapy students and educators, and those in related professions.

mtp.oxfordjournals.org



MUSIC THERAPY and AUTISM

Learn about music therapy and music therapy interventions for persons with autism spectrum disorder (ASD). This virtual issue presents scholarly articles highlighting the work of Board Certified Music Therapists.

oxford.ly/AMTA_Autism

OXFORD
UNIVERSITY PRESS